

wherein said proximal holding part is provided with a light guide joint section where an entrance end face of said light guide is fixed,

wherein said small-sized light source unit is constructed and arranged to be removably connected with said light guide joint section, and

wherein said small-sized light source unit comprises a plurality of small-sized LEDs and a compounding optical system configured to compound light emitted by said plurality of small-sized LEDs.

19. (Amended) A TV observation system for an endoscope according to claim 18, wherein said plurality of small-sized LEDs are LEDs that emit light having wavelength bands of red, green and blue, respectively, and wherein said light compounding optical system compounds the light having wavelength bands of red, green and blue and combines paths of the light having wavelength bands of red, green and blue into a single path.

20. (Amended) A TV observation system for an endoscope according to claim 19, wherein said small-sized light source unit further comprises a mechanism configured to control electric currents applied to said small-sized LEDs so that amounts of light emission of said small-sized LEDs are set in a desired ratio for color control of compounded light or so that said small-sized LEDs sequentially emit light.

22. (Amended) A TV observation system for an endoscope according to claim 19, wherein said compounding optical system includes a planar glass plate having light diffusing effect.

23. (Amended) A TV observation system for an endoscope according to claim 22, wherein said planar glass plate has a fine pattern engraved on a surface thereof to compound light emitted by said small-sized LEDs by using a diffraction effect.

24. (Amended) A TV observation system for an endoscope according to claim 23, wherein said planar glass plate is disposed in said light guide joint section and is used as a cover glass configured to protect said light transmitter.

25. (Amended) A TV observation system for an endoscope comprising:
an endoscope;
a small-sized light source unit; and
an attachment TV camera,
wherein said endoscope is structurally separated into an insertion part and a proximal holding part continuously extending from said insertion part,
wherein said endoscope comprises a light guide arranged from a distal end of said insertion part through said proximal holding part,
wherein said proximal holding part is provided with a light guide joint section where an entrance end face of said light guide is fixed,
wherein said proximal holding part is provided with an eyepiece section, on which said attachment TV camera is constructed and arranged to removably mount,
wherein a photographing lens, an image sensor, and said small-sized light source unit are arranged in said attachment TV camera, and
wherein said small-sized light source unit includes a plurality of small-sized LEDs, a compounding optical system configured to compound light emitted by said plurality of small-sized LEDs, and a battery.

26. (Amended) A TV observation system according to claim 18, further comprising an attachment TV camera, wherein said attachment TV camera is constructed and arranged to removably mount on an eyepiece section arranged in said proximal holding part, and wherein a photographing lens, an image sensor, and a battery for supplying a power to said light source unit are arranged in said attachment TV camera.

27. (Amended) A TV observation system according to claim 18, further comprising an attachment TV camera and a TV processor, wherein said attachment TV camera is constructed and arranged to removably mount on an eyepiece section arranged in said proximal holding part, wherein said TV processor is arranged separate from said endoscope, and wherein a photographing lens, an image sensor, and a battery for supplying a power to said light source unit are arranged in said TV processor.

28. (Amended) A TV observation system for an endoscope according to claim 25, wherein said small-sized light source unit is constructed and arranged to removably mount on said attachment TV camera.

29. (Amended) A TV observation system for an endoscope according to claim 25, wherein said small-sized light source unit further comprises a mechanism configured to control electric currents applied to said small-sized LEDs so that amounts of light emission of said small-sized LEDs are set in a desired ratio for color control of compounded light or so that said small-sized LEDs sequentially emit light.

CB
incl.

30. (Amended) A small-sized light source unit comprising:
a plurality of small-sized LEDs; and
a compounding optical system,
wherein said compounding optical system is configured to compound light emitted by said plurality of small-sized LEDs,
wherein said plurality of small-sized LEDs are disposed to oppose an entrance surface of said compounding optical system,
wherein said plurality of small-sized LEDs emit monochromatic light having narrow wavelength spectral bands of red, green and blue, respectively, and
wherein said small-sized light source unit is constructed and arranged to removably mount on a light guide joint section that is arranged in a proximal handling part of an endoscope.

CB
incl.

32. (Amended) A small-sized light source unit according to claim 30, further comprising a mechanism configured to control electric currents applied to said small-sized LEDs so that amounts of light emission of said small-sized LEDs are set in a desired ratio for color control of compounded light or so that said small-sized LEDs sequentially emit light.

33. (Amended) A small-sized light source unit according to claim 30, wherein said compounding optical system includes a prism assembly having two right-angled prism elements cemented together to form a cube and an interface of the two prism elements is

processed with a band-pass coat which transmits rays having predetermined wavelengths and reflects remaining rays.

Cont
34. (Amended) A small-sized light source unit according to claim 30, wherein said compounding optical system includes a planar glass plate configured to diffuse light.

See the attached Appendix for changes made to effect the above claims.

Please add the following new claims:

Cont
38. (New) A TV observation system for an endoscope comprising:
an endoscope; and
a small-sized light source unit,
wherein said endoscope is structurally separated into an insertion part and a proximal holding part continuously extending from said insertion part,
wherein said endoscope comprises a light guide arranged from a distal end of said insertion part through said proximal holding part,
wherein said proximal holding part is provided with a light guide joint section where an entrance end face of said light guide is fixed, and
wherein said small-sized light source unit is constructed and arranged to be removably connected with said light guide joint section.

39. (New) A TV observation system for an endoscope comprising:
an endoscope;
a small-sized light source unit; and
an attachment TV camera,
wherein said endoscope is structurally separated into an insertion part and a proximal holding part continuously extending from said insertion part,
wherein said endoscope comprises a light guide arranged from a distal end of said insertion part through said proximal holding part,
wherein said proximal holding part is provided with a light guide joint section where an entrance end face of said light guide is fixed,

wherein said proximal holding part is provided with an eyepiece section, on which said attachment TV camera is constructed and arranged to removably mount, and

wherein a photographing lens, an image sensor, and said small-sized light source unit are arranged in said attachment TV camera.

40. (New) A small-sized light source unit according to claim 34, wherein said planar glass plate has a fine pattern engraved on a surface thereof to compound light emitted by said small-sized LEDs by using a diffraction effect.

41. (New) A small-sized light source unit comprising:

a plurality of small-sized LEDs;

a compounding optical system, and

a battery,

wherein said compounding optical system is configured to compound light emitted by said plurality of small-sized LEDs,

wherein said plurality of small-sized LEDs are disposed to oppose an entrance surface of said compounding optical system,

wherein said plurality of small-sized LEDs emit monochromatic light having narrow wavelength spectral bands of red, green and blue, respectively, and

wherein said small-sized light source unit is arranged in an attachment TV camera that is constructed and arranged to removably mount on an eyepiece section arranged in a proximal handling part of an endoscope.

42. (New) A small-sized light source unit according to claim 41, wherein said small-sized light source unit is constructed and arranged to removably mount on said attachment TV camera.

43. (New) A TV observation system for an endoscope according to claim 18, wherein said small-sized light source unit further comprises a mechanism configured to control electric currents applied to said small-sized LEDs so that amounts of light emission of said small-sized LEDs are set in a desired ratio for color control of compounded light or so that said small-sized LEDs sequentially emit light.

44. (New) A TV observation system for an endoscope according to claim 18, wherein said compounding optical system is a prism assembly having two right-angled prism elements cemented together to form a cube and an interface of the two prism elements is processed with a band pass coat configured to transmit rays having predetermined wavelengths and to reflect remaining rays.

CS
45. (New) A TV observation system for an endoscope according to claim 18, wherein said compounding optical system includes a planar glass plate having light diffusing effect.

46. (New) A TV observation system for an endoscope according to claim 45, wherein said planar glass plate has a fine pattern engraved on a surface thereof to compound light emitted by said small-sized LEDs by using a diffraction effect.

47. (New) A TV observation system for an endoscope according to claim 46, wherein said planar glass plate is disposed in said light guide joint section and is used as a cover glass configured to protect said light transmitter.

IN THE ABSTRACT OF THE DISCLOSURE:

Please delete the present Abstract of the Disclosure and replace it with the Abstract of the Disclosure attached hereto as a separate sheet. See the attached Appendix.